

Session of Technical Committee ISO/TC 41

28-5-24/30

and transporter bands to the Committee of Standards, Measures
and Measuring Devices.

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Povolotskiy, L.I., Engineer

28-58-3-1/39

TITLE: The Stepped-Up Development of the Chemical Industry is the Paramount Factor in the Technical Progress of the National Economy (Uskorennoye razvitiye khimicheskoy promyshlennosti - vazhneyshiy faktor tekhnicheskogo progressa narodnogo khozyaystva)

PERIODICAL: Standartizatsiya, 1958, ²²Nr 3, pp 3-6 (USSR)

ABSTRACT: Information is given on the increased production plans for 1959 through 1965 in the Soviet mechanical industry. The output of artificial fibers has to be increased by 4.6, of plastics and synthetic resins by 8, of synthetic rubber by 3.4 times over 1957 figures. In connection with the expansion of the chemical industry, it is planned to reach the following production figures by 1965: 500 million meters of woolen fabrics, 1 billion meters of silk fabrics, 480 million meters of cotton fabrics mixed with synthetic fibers, 940 million pieces of artificial astrakhan fur (5 million square meters), 515 million pairs of shoes. The plans call for the construction of 120 new and the reconstruction of 137 existing chemical plants plus new scientific and research institutions. The estimated costs

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The Stepped-Up Development of the Chemical Industry is the Paramount Factor in the Technical Progress of the National Economy

are 100 billion rubles. It is stressed that along with the expansion, the chemical industry must drastically improve production quality. The following products are mentioned as needing improvement: kapron fiber (stockings), viscose fiber (rubber industry, automobile tires), paints and dyes. Dyes of high quality are produced in too small quantity and assortment. The state standards for pneumatic automobile tires will be revised in 1958. The use of edible raw materials in the production of synthetic rubber will be stopped, and the new plants will be designed for the use of butane-butylene fractions as initial raw material. It is pointed out that nitroorganic fertilizers produced in the form of ammonium nitrate and ammonium sulphate, which in the end oxidize the soil with their residues, must be increasingly replaced by neutral and concentrated fertilizers. Production of the most effective insecticides including hexachlorane, "2,4 DU", "merkuran" etc. will be greatly increased.

Card 2/2

1. Chemical industry--USSR

POVOLOTSKIY, L.I.

Standardization in the chemical and petroleum industries.
Standartizatsiia 24 no.4:12 Ap '60. (MIRA 13:9)
(Standardization) (Chemical industries)
(Petroleum industry)

POVOLOTSKIY, L.I.

Water-content standards for petroleum products. Standarti-
zatsiia 24 no.6:55 Je '60. (MIRA 13:7)
(Petroleum products--Testing)

POVOLOTSKIY, L.I.

More mineral fertilizers for agriculture. Standartizatsiia 36
no.6:13-14 Je '62. (MIRA 15:7)
(Fertilizers and manures)

GORBANENKO, A.D.; ZEGER, K.Ye.; ZERNOVA, T.A.; IVANOV, K.I.;
LIPSHTEYN, R.A.; LUZHETSKIY, A.A.; POVOLOTSKIY, L.I.

Importance of ash content in boiler fuels for electric power
plants. Standartizatsiia 28 no.1:24-25 Ja '64.
(MIRA 17:1)

DYBAN, Ye.P., kand.tekhn.nauk; STRADOMSKIY, M.V., kand. tekhn. nauk;
SHVETS, I.T., akademik; KNABE, A.G., inzh.; POVLOTSKIY, L.V.,
inzh.; SHPET, N.G., inzh.

Study of the cooling system of a seamlessly forged drum rotor of an
experimental gas turbine. Teploenergetika 12 no.5:26-31 My '65.
(MIRA 18:5)

1. Institut tekhnicheskoy teplofiziki AN UkrSSR i Khar'kovskiy
turbinnyy zavod imeni S.M.Kirova. 2. AN UkrSSR (forShvets).

L 59374-65 EPA/EWP(f)/EPF(n)-2/EPF/T-2/EPA(bb)-2 Paa-4/Pa-4 WW

ACCESSION NR: AP5017870

UR/0286/65/000/011/0117/0117

621.438-546

33
B

AUTHOR: Kaplan, M. P.; Shvarts, V. A.; Povolotskiy, L. V.

TITLE: A double shaft gas turbine installation. Class 46, No. 171697

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 117

TOPIC TAGS: gas turbine engine

ABSTRACT: This Author's Certificate introduces: 1. A double shaft gas turbine installation. On one shaft are a medium pressure compressor and a low pressure turbine, while on the other shaft are low and high pressure compressors and a high pressure turbine. The installation is designed for high economy under partial loads. The device has a valved bypass line which connects the air channel after the medium pressure compressor with the gas channel after the high pressure turbine. 2. A modification of this design with a regenerator heated by the gases which are partially removed after the low pressure turbines.

ASSOCIATION: none

Card 1/3

L 59374-65

ACCESSION NR: AP5017870

SUBMITTED: 19Mar64

ENCL: 01

SUB CODE: PR

NO REF SOV: 000

OTHER: 000

Card 2/3

L 59374-65

ACCESSION NR: AP5017870

ENCLOSURE: 01

0

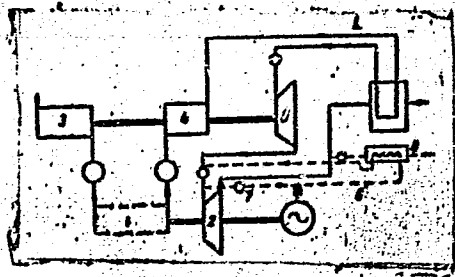


Fig. 1. 1--medium pressure compressor; 2--low pressure turbine; 3--low pressure compressor; 4--high pressure compressor; 5--high pressure turbine; 6--bypass line; 7--valve; 8--regenerator

Card 3/3 *slp*

(A) L 9457-66 EPA/EWP(f)/EPF(n)-2/T-2/ETC(m) WW

ACC NR: AP5025067

SOURCE CODE: UR/0286/65/000/016/0117/0117

AUTHORS: Kaplan, M. P.; Povolotskiy, L. V. 44,55

ORG: none

TITLE: Method for starting a two-shaft gas turbine engine. Class 46, No. 174041

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 117

TOPIC TAGS: gas turbine engine, engine start up, gas turbine operation, ENGINE STARTER SYSTEM, ENGINE COMPRESSOR SYSTEM

ABSTRACT: This Author Certificate presents a method for starting up a two-shaft gas turbine which has the medium pressure compressor and the low pressure turbine on one shaft and the low pressure compressor and high pressure turbine on the other shaft. To permit starting with only one electric motor located on the low pressure turbine shaft, part of the air from the medium pressure compressor is ducted to the low pressure combustion chamber (see Fig. 1).

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UDC: 621.438-573

L 9457-66

ACC NR: AP5025067

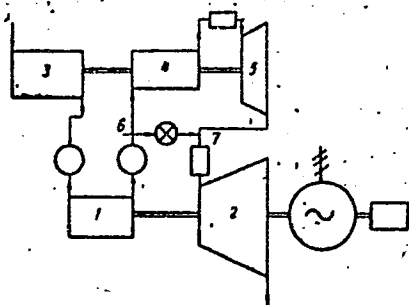


Fig. 1. 1 - Medium pressure compressor;
2 - low pressure turbine;
3 - low pressure compressor;
4 - high pressure compressor;
5 - high pressure turbine;
6 - duct from medium pressure compressor; 7 - duct to low pressure combustion chamber.

Orig. art. has: 1 figure.

SUB CODE: 21 / SUBM DATE: 28Mar64

Card 2/2 pu

ACCESSION NR: AP4038898

S/0114/64/000/005/0006/0009

AUTHOR: Korzh, P. I. (Engineer); Poyolotskiy, L. V. (Engineer);
Knabe, A. G. (Engineer); Arkad'yev, B. A. (Engineer)

TITLE: Investigating nonsteady operation of cooled disk-type rotor of a gas turbine

SOURCE: Energomashinostroyeniye, no. 5, 1964, 6-9

TOPIC TAGS: turbine, gas turbine, gas turbine quick starting, gas turbine nonsteady operation, gas turbine disk rotor

ABSTRACT: Peak-load or reserve gas turbines in power-supply systems operate under repeated start-stop and quick-start conditions. Hence, it is essential to know the behavior of the most important gas-path parts subjected to varying high temperatures. Results of an experimental investigation of the temperature field in a disk-type rotor under nonsteady-operating conditions are reported. The temperature fields were measured under these conditions: (a) starting from the cold state without warming up; the maximum gas temperature was attained in

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ACCESSION NR: AP4038898

1-1.5 min, and the rated load was taken in 3.5-4 min; (b) starting with a 5-min, 40%-rpm, 520-550C-gas warm-up; and (c) starting one hour after the turbine shutdown, with the disk temperature 250-300C. Stresses in the disk (hub, tip) were estimated. These conclusions were reached: (1) Cold starting is not limited by the disk stresses; (2) The radial-blow system of cooling the test turbine is satisfactory; (3) N. A. Minyaylenko's method ("Determining temperature fields and stresses in gas-turbine disks," AN UkrSSR, 1960) ensures good agreement with the experiment. Orig. art. has: 6 figures, 1 formula, and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: PR

NO REF SOV: 006

OTHER: 000

Card 2/2

KORZH, P.I., inzh.; POVOLOTSKIY, L.V.; KNABE, A.S.; ARKAD'YEV, B.A.

Study of the nonsteady mode of operation of a cooled disc
rotor of a gas turbine. Energomashinostroenie 10 no.5:6-9
My '64. (MIRA 17:8)

POVOLOTSKIY, L.V., inzh.; ARKAD'YEV, B.A., inzh.

Study of multishield insulation. Teploenergetika 11 no. 1:
36-40 Ja '64. (MIRA 17:5)

1. Khar'kovskiy turbinnyy zavod im. S.M.Kirova.

PEREVERZEV, D.A., kand. tekhn. nauk; POVOLOTSKIY, L.V., inzh.; CHIRKIN,
N.B., inzh.

Temperature field of a turbine rotor cooled by a steam blast
through round channels in blade root. Energomashinostroenie
11 no.9:24-27 S '65. (MIRA 18:10)

POVOLOTSKII, Leonid Ivanovich, 1883-

Patent rights and protection in the USSR Moskva, IUrId. izd-vo, 1941. 91 p. (Biblioteka narodnogo sud'i i narodnogo zasedatelia) (55-47772)

Law

1. Patent laws and legislation - Russia.

POLODINSKIY, L.Ya., inzh.; ZLATKIN, B.R., inzh.

Methodology for consolidated determination of the cost of power
transformers. Elektrotehnika 36 no.10:19-22 Q '65.

(MIRA 18:10)

POVOLOTSKIY, M.M.

ZVEREV, A.G.; POPOV, V.F.; FADEYEV, I.I.; BABUSHKIN, V.I.; BERLOVICH, I.L.;
BOCHKO, A.M.; BURLACHENKO, S.Ye.; GARBUZOV, V.F.; DMITRICHEV, P.Ya.;
DUNDUKOV, G.F.; ZLOBIN, I.D.; KROVUSHKIN, A.E.; KOESHUNOV, A.I.;
KUZIN, M.G.; KUTUZOV, G.A.; LYSKOVICH, A.A.; MASHTAKOV, A.M.;
MIKHEYEV, V.Ye.; NIKEL'BERG, P.M.; POSKONOV, A.A.; ROMANOV, G.V.;
SOSIN, I.F.; SOSNOVSKIY, V.V.; POVOLOTSKIY, M.M.; URYUPIN, F.A.;
KHARIONOVSKIY, A.I.; CHULKOV, N.S.; SHESHERO, N.A.; SHITOV, A.P.;
SHUVALOV, A.M.; YANBUKHTIN, K.Kh.

Arsenii Mikhailovich Safronov; obituary. Fin.SSSR 18 no.11:95
N '57. (MIRA 10:12)

(Safronov, Arsenii Mikhailovich, 1903-1957)

PANKRAT'YEV, A.F., inzh.; POVOLOTSKIY, M.Ye., inzh.; KOVALEV, Ye.B., inzh.

A series of explosionproof asynchronous motors with 0.27kv. to
100 kv. power ratings. Vest. elektroprom. 34 no.3:4-7 Mr '63.
(MIRA 16:8)

(Electric motors, Induction)
(Mining machinery--Electric driving)

CHERNIK, B.F., inzh.; LOMOV, G.M., inzh.; BAKHURISHVILI, N.P.,
inzh.

Method for improving the characteristics of asynchronous motors
with short-circuited rotors. *Elektricheskaya tekhnika* 35 no.5:10-13 Apr 64
(Moscow 1964)

POVOLOTSKIY, M.Ye., inzh.; KORYAGIN, V.F., inzh.; BROVKIN, S.D., inzh.

Special features in the design of large explosionproof short-circuited asynchronous motors. Elektrotehnika 35 no.11:52-54
N '64.
(MIRA 18:6)

POVOLOTSKIY, M.Ye., inzh.

Conference on electric motors for mines. Vest.elektroprom.
33 no.1:80 Ja '62. (MIRA 14:12)
(Electricity in mining)

KHACHATURYANTS, S.A.; POVLOTSKIY, M.Z.

Precast reinforced concrete bridge piles. Avt. dor. 21 no.5:5-6
My '58. (MIRA 11:6)
(Bridges, Concrete) (Pile driving)

Результаты работы
СНТЕРА, Б.С., инженер; СОВЕТСКИЙ, П.З., инженер.

prefabricated overchutes made of prestressed concrete. Gidr.i
mel. 9 no.7:24-28 J1 '57. (P.3A 10:8)
(Irrigation canals and flumes)

POVOLOTSKIY, V.S., inzh.

Investigating the efficiency of machine cleaning of metal parts
in rolling stock repair and the possibility of using readily available
reagents. Trudy MIIT no.109:30-73 '58. (MIRA 11:11)
(Railroads--Maintenance and repair) (Metal cleaning)

POVOLOTSKIY, V.S., tekhnik-elektrik; REYZLIN, A.S., inzh.-elektrofizik

Relay for protecting d.c. machinery from sparking under the
collector brushes. Gor.zhur. no.5:73 My '62. (MIRA 16:1)

1. Achisayskiy polimetallicheskiy kombinat.
(Electric relays)
(Electric machines—Direct current)

POVOLOTSKIY, V.S.; REYZLIN, A.S.

Automatic current regulator for controlling the electrode
of an arc furnace. Gor. zhur. no.6:75-76 Je '62. (MIRA 15:11)

1. Achisayskiy kombinat, g. Kentau.
(Electric furnaces) (Automatic control)

POVOLOTSKIY, V.S., Compendium -- (disc) "Study of ~~the~~ effective use
of ~~the~~ ^{use of} machine cleaning of ~~the~~ metallic parts in the repair of rolling
stock and of the possibility of ~~supplying~~ ^{use of} available reagents."

Mos, 1958, 17 p. (Min of Railways USSR. Dec Order of Lenin and
Order of Labor Red Banner Inst of Engineers of Railroad Transport
in I.V. Stalin) 120 copies (EL, 23-54,111)

BOGORODITSKIY, N.P., professor; VASIL'YEV, D.V., professor; BAYDA, L.I.
dotsent; ODINTSOV, G.V., dotsent; SEMENKOVICH, A.A., dotsent; FATEYEV.
A.V., dotsent; YURGENSON, R.I., dotsent; ARANOVICH, B.I., starshiy
prepodavatel'; GEKTOR, D.S. starshiy prepodavatel'; POVOLOTSKIY, Ya.A.,
prepodavatel'.

Development of automatic control and telemechanics in the fifth
five-year plan. Avtom. i telem. 14 no. 2: 238-240 Mr-Apr '53.

(MLRA 10:3)

1. Leningradskiy elektrotekhnicheskiy institut im. V.I. Ul'yanova
(Lenina)

(Automatic control) (Remote control)

Povolotskiy, YA. L.

Virological investigations in epidemic parotitis. *p. 17*

Povolotskiy, YA. L.

Material of serological investigations of epidemic parotitis. *p. 101*

Materialy nauchnykh konferentsii, Kiev, 1959. 288pp
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

Povolotskiy, YA. L., Vasil'yeva, V. L.

On the question concerning the possibility of the existence of tick encephalitis on the territory of the Kiev and Chernigov Oblast' (Preliminary report)

Materialy nauchnykh konferentsii, Kiev, 1959. 288pp
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

POVOLOTSKIY, Ya. I.

Epidemiology of epidemic parotitis. Vrach.delo no.11:1211 H'58
(MIRA 12:1)

1. Kiyevskiy nauchno-issledovatel'skiy institut epidemiologii
i mikrobiologii (nauchnyy rukovoditel' - deystv. chlen AMN SSSR
prof. L.V. Gromashevskiy).
(GOITER)

BIRKOVSKIY, Yu.Ye.; POVOLOTSKIY, Ya.L.

Lev Vasil'evich Gromashevskii, outstanding Soviet epidemiologist;
on his 75th birthday. Zhur. mikrobiol., epid. i immun. 40
no.6:141-144 Je '63. (MIRA 17:6)

1. Iz Kiyevskogo institut epidemiologii i mikrobiologii.

POVOLOTSKIY, YA. L. Cand Med Sci -- "Data on the epidemiological
and experimental study of epidemic parotitis," Dnepropetrovsk, 1960,
18 pp, 200 cop. (Dnepropetrovsk State Medical Institute) (KL, 45-60, 128)

VOLOVICH, N.I.; POVOLOTSKIY, Ya.L.; SHEYNTSVIT, N.V.; RESHETAR, K.M.;
VALKOVTSY, A.A.

Immunological indices in subjects coming in contact with
persons vaccinated with live influenza vaccine. Vop. virus.
8 no.1:68-72 Ja-F'63. (MIRA 16:6)

1. Uzhgorodskiy institut epidemiologii, mikrobiologii i gigi-
yeny.

(INFLUENZA—PREVENTIVE INOCULATION) (IMMUNITY)

POVOLOTSKIY, Ya.L.

Data from serological investigations in epidemic parotitis. Zhur.
mikrobiol.epid.i immun. 30 no.10:117-123 O '59. (MIRA 13:2)

1. Iz Kiyevskogo instituta epidemiologii i mikrobiologii.
(MUMPS immunol.)

POVOLOTSKIY, Ya. I.

Virological studies in epidemic parotitis. Vop. virus. 5 no. 1:61-
65 Ja-F '60. (MIRA 14:4)

1. Kiyevskiy institut epidemiologii i mikrobiologii.
(MUMPS)

ACC NR: AP7005396

SOURCE CODE: UR/0148/67/000/001/0138/0141

AUTHOR: Dovgalevskiy, Ya. M.; Mikheyev, N. I.; Povolotskiy, Ye. G.

ORG: Saratov Polytechnical Institute (Saratovskiy politekhnicheskiy institut)

TITLE: Effect of aluminum on the structure and properties of alloys of the Magnico type

SOURCE: IVUZ. Chernaya metallurgiya, no. 1, 1967, 138-141

TOPIC TAGS: magnetic alloy, aluminum containing alloy, magnetic property

ABSTRACT: The authors study the effect of aluminum on the structure and properties of anisotropic Magnico alloys. The alloys studied were smelted with an aluminum concentration of 6.2-9.5% in the charge corresponding in other components to the composition of Anko-4 alloy (GOST 4402-48). Metallographic and magnetometric methods were used in the analysis. The coercive force was taken as the criterion for determining structural changes. A U-541 installation was used for measuring the residual induction, coercive force and demagnetization curves by the ballistic method. The Curie points of the alloys were determined from the effect of temperature on their magnetic permeability. Definite structural states of the alloys were fixed by isothermal quenching from various temperatures. The process of $\beta_2 \rightarrow \alpha + \beta_2$ decay takes place in the 870-1280°C range with an incubation period which decreases with a reduction in aluminum concentration.

Cord 1/2

UDC: 669.018.5:620.183

ACC NR: AP7005396

The temperature corresponding to minimum incubation for $\beta_2 \rightarrow \alpha + \beta_2$ decay rises with a reduction in aluminum concentration in the alloy. There is also an expansion in the temperature region for development of this decay process as aluminum concentration decreases. Thus the temperature to which Magnico alloys are heated before quenching should be selected with regard to aluminum concentration. Aluminum concentration should also be taken into account in calculating the critical cooling rate in the upper temperature interval (1300-850°C) during heat treatment. The time necessary for reaching the maximum degree of decay decreases extremely rapidly with a reduction in aluminum concentration. For instance, an alloy with 9.5% Al requires 10-12 hours for completion of the decay process while the corresponding figure for an alloy with 7.5% Al is 10-12 minutes. The overall level of coercive force increases with a reduction of aluminum in the alloys. The results of these studies show that aluminum has a strong effect on high-temperature conversion in Magnico alloys which is detrimental to their magnetic properties. The effect of aluminum concentration on the properties of the alloys is revealed most clearly in the shape of hysteresis curves and the magnitude of maximum magnetic energy. Specimens subjected to magnetic heat treatment with subsequent annealing under optimum conditions show maximum magnetic energy with 8.5% aluminum concentration. An increase or reduction in this concentration is detrimental to the magnetic properties of the alloy. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: 13Jul65/ ORIG REF: 03/ OTH REF: 02

Card 2/2

DOVGALEVSKIY, Ya.M.; POVOLOTSKIY, Ye.G.

High-temperature decomposition in Alnico (Magnic)-type
alloys. Izv. vys. ucheb. zav.; Chern. met. 4 no.11:170-175
'61. (MIRA 14:12)

1. Saratovskiy politekhnicheskii institut.
(Aluminum-nickel alloys--Metallography)
(Metals in high temperature)

BOVILEVSKIY, Yu.M., inzh.tekhn.nauk; POVOLOTSKIY, Ye.G., inzh.

Reduction of the magnetic properties of "Magneco" alloys in presence
of "dual" fractures. Metalloved. i term. obr. met. no.6:14-17 Je '62.
(MIRA 15:7)

1. Saratovskiy politekhnicheskii institut.
(Iron-nickel-cobalt alloys--Magnetic properties)

DOVGALEVSKIY, Ya.M.; POVOLOTSKIY, Ye.G.

Initial crystallization of alnico-type alloys. Izv. vys.
ucheb. zav.; chern. met. no.2:127-129 :60. (METAL 15:5)

1. Saratovskiy avtomobil'no-dorozhnyy institut.
(Nickel-cobalt-aluminum alloys--Metallography)
(Crystallization)

DOVGALEVSKIY, Ya.M.; POVOLOTSKIY, Ye.G.; MIKHEYEV, N.I.

Methods for exposing the macro- and microstructure in alni- and
alnico-type alloys. Zav.lab. 23 no.3:311-312 '62. (MIRA 15:4)

1. Saratovskiy politekhnicheskiy institut.
(Aluminum alloys--Metalligraphy)

POVOLOTSKIY, Ye.G.; DOVGAEVSKIY, Ya.M.; BAYTINA, V.K.

Effectiveness of a magnetic field in the thermomagnetic treatment
of Alnico-type alloys. Metalloved. i term. obr. met. no.11:
10-14 N '63. (MIRA 16:11)

1. Saratovskiy politekhnicheskii institut.

MIKHEYEV, N.I.; DOVGALEVSKIY, Ya.M.; POVOLOTSKIY, Ye.G.

Characteristics of high temperature decomposition in magnico
alloys. Metalloved. i term. obr. met. no. 2:7-10 F '65.
(MIRA 18:12)

1. Saratovskiy politekhnicheskii institut.

S/129/62/000/006/003/008
E073/E435

AUTHORS: Dowlalevskiy, Ya.M., Candidate of Technical Sciences
Povolotskiy, Ye.G., Engineer

TITLE: Deterioration of the magnetic properties of Magniko
alloys in the case of "lustreless" fractures

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no.6, 1962, 14-17

TEXT: The state of Magniko alloys with lustreless fractures and
methods of re-establishing high magnetic properties in such alloys
were studied on material of the following composition:
Anko-3 (Anko-3): 19% Ni; 10.6% Al, 18.36% Co, 3.1% Cu, 0.03% C;
0.3% Si; Anko-4 (Anko-4): 13.8% Ni; 8.4% Al; 24.33% Co,
3.23% Cu; 0.03% C, 0.08% Si; produced in a 50 kg high-frequency
furnace. Conclusions: Slow cooling or isothermal holding at
900 to 1200°C produces decomposition of the solid solution into a
two-phase structure, causing a sharp drop in the magnetic
properties; the minimum coercive force is caused by changes
brought about in the alloy in the range 1100 to 1050°C and the
magnetic energy of a specimen cooled at 1075°C is only
Card 1/2

Deterioration of the magnetic ...

S/129/62/000/006/003/008
E073/E435

1.2×10^6 Gauss Oe. Such decomposition can also result from cooling the alloy in the range 1200 to 900°C at a rate below 40 to 50°C/min. In this state the material is more malleable and easier to machine. The normal high magnetic properties can be re-established by heat treatment. The following process of manufacture of Magniko type magnets proved best: smelting, isothermal annealing at 1000 to 1100°C, machining at higher rate than usual, servomagnetic treatment at 1300°C followed by the usual tempering. There are 3 figures and 1 table.

ASSOCIATION: Saratovskiy politekhnicheskii institut
(Saratov Polytechnical Institute)

Card 2/2

33170

S/148/61/000/011/015/018
EO40/E180

18.1142

AUTHORS: Dovgalevskiy, Ya.M., and Povolotskiy, Ye.G.
TITLE: High temperature segregation in Alnico (Magnico) type alloys
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no.11, 1961, 170-175
TEXT: Preliminary tests showed that slow cooling of Alnico alloys (Fe-Ni-Al-Co) of high coercive force through the 1300-900 °C temperature range causes a noticeable deterioration in the magnetic properties. In order to explain this phenomenon, determinations were made of the magnetic induction (H_c) and coercive force (Br) of specimens of Anco-3, Anco-4, non-standard Alnico alloy (27% Co), and a cobalt-free AN-2 (AN-2) alloy (26.90% Ni, 12.10 Al, 3.76 Cu, 0.01 C, 0.07 Si, 0.011 S, remainder Fe). 50 kg batches of the test alloys were melted in a high-frequency furnace and 27 x 7 x 7 mm test specimens prepared from 50 x 30 x 30 mm castings previously subjected to heat treatment (up to 1300 °C) and ground on all sides. Micrographic examination
Card 1/4

33170

High temperature segregation ...

S/148/61/000/011/015/018
E040/E180

was made of specimens etched with 5% alcoholic solution of HNO_3 and 15% aqueous solution of HNO_3 . The segregated phase was separated by anodic dissolution using an electrolyte consisting of 5% HCl and a complexing agent (nature not stated) at a low current density (50 mA/cm^2). This electrolyte was found to be the most selective with regard to the various phases present in the specimens. The deposit of the unknown phases thus obtained was then subjected to X-ray structural analysis using $\text{CoK}\alpha$ and $\text{FeK}\alpha$ radiations. Before testing, the specimens were homogenised at 1300°C , held isothermally at various temperatures in the range $1250\text{--}800^\circ\text{C}$, and oil-quenched. It was found that a structural breakdown occurs in Alnico alloys in the temperature interval of $1200\text{--}900^\circ\text{C}$ and results in the segregation of a face-centred cubic phase with crystal lattice parameter $a = 10.2\text{\AA}$ from the starting solid solution. The segregation goes on even at temperatures below 900°C , but the rate of the segregation then drops to such an extent that the process is masked by the $\beta_2 \rightarrow \beta + \beta_2$ transformation. The new phase formed during the segregation is enriched in Co and Fe, its hardness is lower than

Card 2/4

33170

High temperature segregation ...

S/148/61/000/011/015/018
EO40/E180

that of the matrix and it is deposited mainly in sections of axes of dendrites, grain boundaries and substructure. The high-temperature segregation is shown clearly only in cobalt-containing alloys and the presence of the new phase can be detected visually by a change of fractured surfaces from the usually bright appearance to a dull one. Under plant conditions, the dull appearance of the fractured surface is caused by slow cooling or by a high-temperature thermal treatment of the magnets (1200-900 °C). In the case of Anco-3 alloys, the formation of this new phase can be prevented by ensuring that the cooling rate does not drop below 50 °C/min. Although the segregation of the new phase leads invariably to a deterioration in magnetic properties, the original magnetic properties are restored by repeating the homogenisation treatment.

There are 4 figures, 1 table and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The English language reference reads:
Ref.2: R.D. Heidenreich, E.A. Nesbitt.

Journal of Applied Physics, v.23, no.3, 1952.

Card 3/4

33170

High temperature segregation ...

S/148/61/000/011/015/018
EO40/E180

X

ASSOCIATION: Saratovskiy politekhnicheskiy institut
(Saratov Polytechnical Institute)

SUBMITTED: December 10, 1960

Card 4/4

POVOLOTSKIY, Ya. A. inzhener.

New high-production end cutters. Mashinostroitel' no.6:28-31
Je '57. (MIRA 10:7)

(Cutting tools)

34323

S/032/62/028/003/010/017
B102/B138

18.1142

AUTHORS: Dovgalevskiy, Ya. M., Povolotskiy, Ye. G., and Mikheyev, N. I.

TITLE: Method of revealing the macro- and microstructure in Alni and Alnico alloys

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 3, 1962, 311 - 312

TEXT: The magnetic properties of Alni and Alnico alloys, which are used for permanent magnets, depend on their macro- and microscopic structures. A chemical method of revealing these structures has been developed and a method of determining grain orientation is described. The alloys Аи2 (An2), Аико 3 (Anko 3) and Аико4 (Anko 4) were used as specimens and the following compositions as etching agents:

No. 1: 100 ml HCl + 10 ml HNO₃ + 25 g K₂Cr₂O₇ + 100 ml H₂O

No. 2: 75 ml HCl + 25 ml HNO₃

No. 3: 15 ml HNO₃ + 85 ml H₂O

No. 4: 5 ml HNO₃ + 95 ml ethyl alcohol

Card 1/2

Method of revealing the macro- and ...

S/032/62/028/003/010/017
B102/B138

No. 5: 2 ml HCl + 3 g FeCl₃ + 100 ml methyl alcohol

No. 6: 10 ml HCl + 2 ml Br + 88 ml methyl alcohol

1 and 2 were found to be best for revealing grain, 3 for dendritic structure, and 4 - 6 for the microstructure of cast and heat treated alloys. The etching periods for the agents were: 2 - 30 min (1, 2), 15 - 40 min (3), some sec to 2 - 3 min (4, 5) and 2 - 20 sec (6). Grain orientation can be determined with 1 and 2 (30 sec - 30 min). There are 2 figures and 1 table. ✓

ASSOCIATION: Saratovskiy politekhnicheskiy institut (Saratov Polytechnic Institute)

Card 2/2

L 38470-66 EWT(m)/FWP(w)/T/FWP(t)/ETI IJP(c) JD
ACC NR: AP6019502 SOURCE CODE: UR/0129/66/000/006/0033/0036
AUTHOR: Mikheyev, N. I.; Dovgalevskiy, Ya. M.; Povolotskiy, Ye. G. 78
ORG: Saratovsk Polytechnic Institute (Saratovskiy politekhnicheskii 76
institut) B
TITLE: Effect of carbon in Magnico alloys S
SOURCE: Metallovedeniye 1 termicheskaya obrabotka metallov, no. 6, 1966,
33-36
TOPIC TAGS: high alloy steel, carbon, thermal decomposition, magnetic
property, magnetic alloy
ABSTRACT: Studies were made of alloys containing 0.20 to 0.2% carbon,
with a basic chemical composition corresponding to alloy ANKO-4
(GOST 4402-48). The investigation was carried out by a comparison of
microstructural and magnetometric analyses. To determine the structural
states of the alloy, the method of isothermal quenching from different
temperatures was used. A study was made of the effect of carbon on high
temperature $\beta_2 \rightarrow \alpha + \beta_2$ -decomposition (the temperature region above
850°C) and of low temperature dispersive $\beta_2 \rightarrow \beta + \beta_2$ -decomposition
(below 850°C), leading to a high state of coercivity. Experimental
results are shown in graphic form. Overall conclusions are as follows.
Card 1/2 UDC: 669.14.018.58

L 38470-66

ACC NR: AP6019502

Carbon in Magnico alloys promotes the development of the $\beta_2 \rightarrow \alpha + \beta_2$ decomposition, which has a negative effect on the magnetic properties of the alloy. The Magnico alloys can be characterized by their temperability, that is, by the diameter of a cylindrical magnet which, after hardening, is characterized by the absence of the $\beta_2 \rightarrow \alpha + \beta_2$ decomposition. The temperability of Magnico alloys increases with a decrease in the carbon content. In magnets of small cross section, good magnetic properties can be obtained with a carbon content up to 0.05%. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 2/2 PB

L 34064-65 EPA(s)-2/EWA(c)/EWT(m)/EPA(bb)-2/ETP(b)/T/EWA(d)/ETP(t) Pt-10 HJW/JD

ACCESSION NR: AP5005096

S/0129/65/000/002/0907/0010

35
34
0

AUTHOR: Mikheyev, N. I.; Dovgalevskiy, Ya. M.; Povolotskiy, Ye. G.

TITLE: Characteristics of high-temperature decomposition in magnico alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1965, 7-10

TOPIC TAGS: magnico alloy, permanent magnet, alloy phase decomposition, high temperature decomposition, coercive force

ABSTRACT: Since it had been found that magnico alloys with the same composition and with similar $\beta_2 \rightarrow \beta + \beta_2$ decomposition had a different tendency toward high-temperature $\beta_2 \rightarrow \alpha + \beta_2$ decomposition, and therefore substantially different magnetic properties, the authors investigated the characteristics of high-temperature decomposition of this alloy, using Anco-4 cast alloy and its various nonstandard modifications. Cast and prehomogenized specimens were isothermically treated or cooled at a controlled rate from 1300-800C. The magnetic properties of the specimens were measured and the microstructure studied. The coercive force was used as the main structure-sensitive characteristic. It was demonstrated that the rate of decomposition depended on the rate of cooling the specimens from 1300-800C and, for isothermal conditions, on the holding time at a given temperature. In alloys with an initial cast structure, decomposition occurred along the axes of the

1/2

L 34064-65

ACCESSION NR: AP5005096

dendrites and grain boundaries, whereas in the prehomogenized specimens it took place only along the grain boundaries. Acicular particles of the separating α -phase develop in slip planes (110) of the β_2 -phase (matrix) and often alternate periodically, forming a regular network. Decomposition was extremely easy to produce near internal cracks. In alloys plastically deformed at elevated temperatures, a grain texture was formed identical to that of the α -phase separations. The particles of the α -phase were preferentially arranged in the same slip planes (110) along which shear occurred. Thus it was found that high-temperature decomposition in magnico alloys, which lowers their magnetic properties, is due to imperfection of their crystal structure and the inevitable presence of carbon in them. The change in the carbon content (0.02-0.05%) under industrial conditions is probably one of the chief causes for variations in the behavior of magnico alloys. This adverse effect of carbon can be suppressed by alloying the magnico alloys with carbide-forming elements. Orig. art. has: 1 table and 5 figures.

ASSOCIATION: Saratovskiy politekhnicheskij institut (Saratov polytechnic institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

Card 2/2

NO REF SOV: 006

OTHER: 003

L 11636-66 EWT(m)/EWA(d)/T/EWP(z)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/HW

ACC NR: AR5018395

UR/0196/65/000/006/B002/B002
621.318.2

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 637

AUTHOR: ^{44,55}Dovgalevskiy, Ya.M.; ^{44,55}Povolotskiy, Ye.G.; ^{44,55}Baytina, V.K.

TITLE: Mechanism of thermomagnetic processing of Magniko type alloys ^{16, 44, 55}

CITED SOURCE: Sb. dokl. na Vses. soveshchaniy po litym splavam dlya postoyan. ^{44,55}
magnitov, 1962. Saratov, 1964, 17-27

TOPIC TAGS: alloy, magnesium alloy, aluminum alloy, cobalt alloy, copper alloy, magnetic metal, magnetic field, thermomagnetic effect

TRANSLATION: A study of alloys of the ^{27 27 27 27 27}Fe-Ni-Al-Co-Cu system has shown that magnetic texture (MT) is created in a series of alloys by magnetic field superposition in a narrow interval of 800-700°C, corresponding with the start of a 2-phase $\beta_2 \rightarrow \beta + \beta_2$ - disintegration. During this process there occurs a temperature hysteresis in the formation and disappearance of MT, which reflects the hysteresis of the phase transformation. It is shown that the state of single-phase θ alloys does not necessarily determine the possibility of MT formation. The alloys are susceptible to thermomagnetic processes only when the secreting β -phase immediately becomes ferromagnetic. During the thermomagnetic processing with a continuous cooling in the magnetic field,

Cord 1/2

L 11636-66

ACC NR: AR5018395

MT is formed in the initial moment of disintegration. A further isometric soaking or a slow cooling without a field help to form MT and to increase H_c without altering B_r . It is shown that MT remains stable during the second annealing and will disintegrate completely only at temperatures over 850°C . 4 figures, 1 table, and 4 references.

SUB CODE: 11/

Cord 2/2

17

Extractum Inquisition. Yu. Povolotskil. Farm. Zhur.
11, No. 1, 35(1934).—One part of fine root is percolated
with cold water, ~~concd.~~ to half the vol., filtered through
flannel, ~~concd.~~ again, dissolved in 4 pts. of water with
NH₄OH and ~~concd.~~ to the required consistency. L. N.

1. POVOLOVSKY, P. A.
2. USS (600)
4. Daghestan - Citrus Fruits
7. Ways to cover trenches in Daghestan, *Lezd. Del'khoz.* No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

AUTHOR: Povolskiy, M.

65-4-10/12

TITLE: How the operation of cleaning equipment on the Krasnodarsk Refinery was improved. (Kak uluchshena rabota ochistnykh sooruzheniy na krasnodarskom neftepererabatyvayushchem zavode)

PERIODICAL: "Khimiya i Tekhnologiya Topliva i Masel"(Chemistry and Technology of Fuels and Lubricants)1957, No.4, pp.59-61(USSR).

ABSTRACT: Improvements achieved in cleaning the effluent water from petroleum products are described. The main contribution to this improvement was the construction of a large settling lagoon (surface area 14 000 m², depth 1.5 to 2 m) in which the effluent water was kept for 2 days. The mean content of petroleum products in the effluent decreased from 350 mg/l (1953) to 28-46 mg/l in 1956. There are 2 tables.

Card 1/1

ASSOCIATION: Krasnodarsk Oil Refinery. (Krasnodarskiy Neftepererabatyvayushchiy zavod)

AVAILABLE:

POVOLU, STATBI A.S.

25358. BLONENFELD, L. A. POVOLU STATBI A.S.
Datb'lova. // Vbchislenie Nizshikh Urovnei Molekuly Naftalina
(Zhurnaleksperim. I Teoret Fiziki > 1947, Vyp 12). Pis'mo v
Redaktsiyu Zhurnal Eksperim I Teoret. Fiziki, 1948, Vyp 7,
s. 670-71 - Bibliogr: 8 Nazv.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

CZECHOSLOVAKIA

M. FOVONDERA [Affiliation not given.]

"Organization and Attitudes of Science and Technology in Our Society."

Prague, Czechoslovenska Farmacie, Vol 12, No 4, May 62; pp 169-171.

Abstract : Brief discursive - exhortatory essay about the developmental trends and needs of science in Czechoslovakia with especial attention to medicine and pharmacy, in the context of various directives resulting from the twelfth convention of the Czechoslovak Communist Party. Most space is devoted to the State Commission for Fostering and Coordinating Science and Technology (Statni komise pro rozvoj a koordinaci vedy a techniky), organized on 23 Feb. 62; its tasks and internal organization are described in some detail, discussing trends and tasks, activities and plans.

1/1

POVONDRA, M., MUDr.

Problems of science and research and the new Document on the
development of health care in the advanced socialist society.
Cesk. zdrav. 12 no.7/8:341-346 Ag '64.

1. Ministerstvo zdravotnictvi.

SULCEK, Z., POVONDERA, F., STANGL, K.

Chromatographic separation of fission products and other ions.
Coll Cz Chem 30 no.2:383-387 F 1965.

1. Zentralinstitut für Geologie und Petrographisches Institut,
Tschechoslowakische Akademie der Wissenschaften, Prag, Submitted
January 10, 1964.

POVONDRA, P.; PRIBYL, R.

Quick methods in the analysis of metals and inorganic raw materials.
Part 13: Chelatometric determination of manganese in ores and slag.
Coll Cz Chem 26 no.9:2164-2168 '61.

1. Institut für Geochemie und anorganische Rohstoffe, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Manganese) (Chelatometry)

POVONDRA, P.; KRCUZEK, E.

"Determination of small amounts of mercury in mineral raw materials" In German.
p. 280

COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, Praha, Czech.,
Vol. 24, No. 1, Jan. 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 6, Sept. 59
Unclassified

POVODRA, P.; VEJNAN, O.

Determination of small amounts of mercury in complex nonferrous ores.
p. 153. RUDY. (Ministerstvo hutního průmyslu a rudných dolů) Praha.
Vol. 4, no. 5, May 1956.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

POVONDRA, PAVEL
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: /not given/

Source: Prague, Casopis pro Mineralogii a Geologii, Vol VI, No 3, 1961,
pp 255-261.

Data: "Hambergite From a Pegmatite at Susice, South Bohemia, Czechoslova-
kia."

Authors: CECH, Frantisek, Institute of Mineralogy, Charles University
(Mineralogicky ustav Karlovy university), Prague.

POVONDRA, Pavel, Polarographic Institute, Laboratory of Analytic
Chemistry, Czechoslovak Academy of Sciences (Polarograficky
ustav, laborator analyticke chemie, Ceskoslovenska akademie
ved).

GPO 981643

POVONDRA, P.

Possibilities for chelatometry in applied chemistry.

p. 395 (Chemie, Vol. 9, no. 3, June 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (IEAT) 10. Vol. 7, no. 2,
February 1958

POVONDRÁ, P., RNDr., C.Sc.; ELIAS, F., inz.

Fast chemical analysis of welding fluxes. Hut listy 17 no.9:665-667
S '62.

1. Polarografický ústav, Československá akademie věd, Praha; Vyskumný
ústav zvaracský, Bratislava.

POVONDRA, P.

J. Svasta, Z. Rezac, and Z. Sulcek's Chemicke Rozbory nerostnych surovin, sesit9, Molybdenove a wolframoinove rudy (Chemical Analysis of Mineral Raw Materials, Vol. 9. Molybdenum and Tungsten-Tin Ores); a book review. p. 125.

RUDY Vol. 4, no. 4, Apr. 1956

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

P. POVONDRA: CECH, V. : SULCEK, Z.:

In memory of Vaclav Vesely; a biographic note. p. 289. (Vestnik, Praha. Vol 31, no. 6, 1956.)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

Podolski, P.

Podolski, P. Estimation principles of complex chemical analysis of ores.
p. 157

Co: Monthly List of the East European Advertiser, (EEM), LV. Vol. 1,
no: 10, Oct. 1995

POVONDRA, P

Distr: 4E2c

Rapid methods in the analysis of metals and minerals
IX. Determination of arsenic as molybdenum blue.
P. Povondra and Z. Šulcek (Ústřední ústav geolog., Prague).
Collection Czechoslov. Chem. Commun. 24, 2393-7 (1959) (in
German); cf. *C.I.* 53, 9684h. — Dissolve the sample of an
Fe ore or a Zn concentrate contg. a max. of 250 γ As in
HNO₃ or HNO₃-H₂SO₄, evap. to dryness, dil. the residue with
20 ml. H₂O, transfer with 30 ml. concd. HCl to a distg. flask
contg. 10 g. Mohr salt, add 10 ml. 10% borax and distil re-
peatedly with the addn. of 15 ml. concd. HCl, 60 and 50
ml. aq. 3:2 HCl, resp., in a stream of N or CO₂ and catch
the distillate. Add 0.5-1 g. KClO₄ to the cooled distillate,

let stand with cooling 60 min., evap. to dryness on a sand
bath, dissolve the residue in cold H₂O, and add 5 ml. 4%
ammonium molybdate in M H₂SO₄, 2 ml. M tartaric acid,
and 1.2-1.8 mg. ascorbic acid. Make up the vol. of the
mixt. to 50 ml., heat 10 min. in a steam bath to reduce the
complex, cool, and measure the light transmission of the
soln. in a photocolormeter with the reagents used in the
comparison cell. X. Determination of manganese¹ and
alkaline earth metals by means of ion exchangers. *Ibid.*
2398-404. — Sepn. and detn. of Mn and alk. earth metals
in various mineral raw materials was carried out on Amber-
lite IR-120 (Rohm & Haas Co.) with citric acid as solvent
and ethylenediaminetetraacetic acid solns. of varying acidity
as eluant. Jiff Pliml

Industrial Analyses of Natural Fluorites CZ/8/52(82)/10-32/39
 filtered on a small filter and ignited in the original crucible and the barium sulphate washed. If the content is high then it is necessary to purify by fusion and reprecipitation. The combined filtrates are made up to the mark in a 250 ml standard flask, mixed and pipetted off in aliquot portions for the determination of calcium. If the sample has a low content of calcium of the ammonium group, the pipetted portion is immediately diluted with a standard solution of triethanolamine (5%) added, made strongly alkaline with sodium hydroxide and titrated with a standard solution of cerium to a pink color. Where there are high concentrations of iron and aluminum, these elements are removed by hydrolytic precipitation with urethane, actually reprecipitated and then the determination carried out as above. The correction for calcium carbonate was carried out indirectly by a volumetric determination of carbon dioxide content. Where there are high carbonate contents, it is necessary to determine the carbonate content after the decomposition of the sample with dilute acetic acid. These methods were used for the analysis of a series of samples from different localities. The methods according to the authors' results, classical comparable values to those obtained by the classical method. The proposed method was used with complete satisfaction, in the control of the flotation process and the time needed was about one third of that of the classical method.
 There are 2 tables and 3 references, 1 of which is Czech, 2 Western.
 ASSOCIATION: Mangrove a Kyzov, Zvaletice (Manganese and Pyrites Factory, Chvalce)

Card 4/5

(3)

DOLEZAL, J.; POVONDRA, P.; STULIK, K.; SULCEK, Z.

Quick method for analyzing metals and inorganic raw materials.
Coll Cz chem 29 no.7:1538-1544 J1 '64.

1. Institut für analytische Chemie, Karlsuniversität und Polargraphisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prague.

27 3
✓ Determination of small amounts of mercury in inorganic
raw materials: E. Kroužek and P. Povondra. Collection
Czechoslov. Chem. Commun. 24, 285-2 (1959) (in German).
See C.A. 53, 4002f. M. Hudlický

POZYDIA, P.

Estimation principles of complex chemical analysis of ...
RND, Praha, Vol. 3, no. 6, June 1994.

SO: Monthly List of East European Accessions, (MML), LC, Vol. 4, no. 10, Oct. 1955,
Incl.

COUNTRY : Czechoslovakia
CATEGORY :

ABD. JOUR. : Rukh., No. 19, 1959, No. 6/1959

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : ... in the distillate. Small amounts of ...
... which distill over together with the ...
... which is a further advantage over the ...
... in determining ... the finely comminuted ...
... is compared with ... the ...
... with the ... is washed with a ...
... of water into a ... of 100 ml ...
... (1:1) are ... the mixture is heated until
... is emitted, and ... HCl (1:1) are added ...
... within approximately 50 ... with constant ...
... of HCl, at 110-130°. If the sample contains ...
... the volume of used HCl and duration of distillation
CARD: 1/5

COUNTRY : Czechoslovakia
CATEGORY :

E-2

ABS. JOUR. : RZKhim., No. 19, 1950, No. 67649

AUTHOR :
INVT. :
TITLE :

ORIG. PUB. :

ABSTRACT : are increased accordingly. Hg is determined in the distillate by extractive titration with a solution of dithizone in CCl_4 or (in the case of a high content of Hg) gravimetrically by the mercaptophenyl-thiathiodiazolone method. The described method is suitable for accurate control of the progress of roasting of lean Hg-ores.

Karel Kamen.

CARD: 3/3

CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81988

H_2SiO_3 which separated during this process is filtered off after 10 minutes and determined by the usual method of weight loss after several evaporations with HF. The residue is treated with several ml of HCl (1 : 4), diluted with hot water, filtered off, calcined, and weighed as $BaSO_4$. The combined filtrates are diluted with water to 250 ml and, using an aliquot of the resulting solution, Ca is determined by titration with 0.1 M Complexone III solution in strongly alkaline medium using murexide as the indicator. Small amounts of metals of the NH_4OH group are masked by adding 5 ml 30% triethanolamine solution; at greater Fe and Al contents these metals are previously separated by precipitating with urotropine. In order to

Card 2/3

CZECHOSLOVAKIA / Analytical Chemistry. Inorganic Analysis. E

Abs Jour : Ref Zhur - Khimiya, No 23, 1959, No. 81988

correct for CaCO_3 , the CO_2 content is found by an indirect titrimetric determination; however, large quantities of CaCO_3 have to be removed by the usual method after a preliminary decomposition with a dilute CH_3COOH solution. --
Karel Kamen

Card 3/3

C. R.

1951

Analytical Chemistry

Use of the tungstate method for determining calcium in the technical analysis of carbonate rocks. Pavel Pavlovich Vashak. *Sov. Geol. Uzb. Ser. Geol. Rep.* 25, 270-80. In English, 292 (1950). Instead of pptg. the Ca as oxalate and the Mg as $MgNH_4PO_4 \cdot 6H_2O$, it is recommended to make a double pptn. with oxine and det. the Mg by bromometry. Ignition of the ppt. Then, evap. the filtrate to dryness, ex- pel NH_3 salts and destroy org. matter by heating in a Pt dish. Ppt. the Ca at pH 8-8.5 by adding 15% Na_2WO_4 soln. at 80°. The filtered, washed, and ignited ppt. contains 19.47% Ca. H. Newcombe

CA

7

Volumetric determination of manganese by the Procter Smith method and its application in the analysis of ores. Pavel Puvondra and Zdeněk Šulc (Central Geol. Inst., Prague, Czech). *Chem. Listy* 45, 600-2 (1951).--The persulfate method for detg. Mn can be applied to a HCl soln. of an ore if excess $\text{Hg}(\text{NO}_3)_2$ is added to convert Cl^- into insoluble HgCl_2 . M. Hudlický

1ST AND 2ND ORDERS																									
PROCESSES AND													PROPERTIES INDEX												
BC																									
Determination of uric acid in small quantities of blood. S. A. POYONENKAYA (Bull. J. Physiol., 1930, 22, 664-666).—A method for preparing a stable coloured solution suitable for use in the wedge of the Autenrieth colorimeter is given. W. O. KERNACK.																									
ASTM-11A METALLURGICAL LITERATURE CLASSIFICATION																									

EST AND (IND) ORDER		PROCESSES AND PROPERTIES INDEX	
BC		14	
Alteration of the non-protein-nitrogen of blood by the action of subcutaneous administration of phoscarpine. S. A. POKHREKHAJA (Russ. J. Physiol., 1934, 12, 637-635).—Subcutaneous administration of phoscarpine in therapeutic doses does not affect the blood-uric acid, but brings about a decrease in the amino-nitrogen and an increase in the residual nitrogen, the latter being more marked on a basic and less marked on an acid diet. When the amino-nitrogen rises the residual nitrogen tends to fall and vice versa. W. O. KIRKACK.			
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION			
GROUPS		SUBGROUPS	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	

BC

PROCESSES AND PROPERTIES INDEX

Blood-lipase in children under the influence of pilocarpine with an acid or alkaline diet. S. A. FURUKAWA. (Res. J. Physiol. 1980, 13, 745-749). The blood-lipase content does not change under the action of pilocarpine, but differs much from individual to individual, and the same child exhibits marked variations. W. O. KERMAK.

ASR-5LA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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POVORINSKAYA, S.

A. PETRUNKINA, Arch. sci. biol. 40, 213-19 (1936)

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Blood lipase in children under the influence of pilocarpine with an acid or alkaline diet. S. A. LUKOMINAKAYA. *Russ Physiol. J.* 13, 745-9 (1930); cf. C. A. 25, 1870 — The blood lipase content does not change under the action of pilocarpine, but differs much from individual to individual, and the same child exhibits marked variations. B. C. A.

ASAC 524 METABOLICAL LITERATURE CLASSIFICATION

Alteration of the nonprotein nitrogen of blood by the action of subcutaneous administration of pilocarpine. S. A. POVORINSKAYA. *Russ. Physiol. J.* 13, 627-35 (1930), cf. C. A. 25, 1876.---Subcutaneous administration of pilocarpine in therapeutic doses does not affect the blood uric acid, but brings about a decrease in the amino N and an increase in the residual N, the latter being more marked on a basic and less marked on an acid diet. When the amino N rises, the residual N tends to fall and vice versa. B. C. A.

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Variations of catalase curve of blood after introduction of pilosarpine on an acid or alkaline diet. S. A. POVONOSKAYA (Russ. J. Physiol., 1930, 13, 188—198).—The curves representing the catalase content of blood at various times after subcutaneous injection of pilosarpine are of a uniform type for children receiving an alkaline but not an acidic diet; where a mixed diet is taken, the curves are of a mixed type. The catalase-time curves for children on an alkaline diet not receiving pilosarpine are not of a uniform type. The catalase curves vary irregularly for the same individual according to the day and hour at which the blood is taken. No parallelism is found between blood-catalase and hemoglobin contents.

R. TRUSEKOWSKI.

The inorganic composition of blood serum in schizoprenics. E. T. Minker-Bogdanova, S. A. Povorinskaya, Yu. A. Povorinskii. *Arch. sci. biol.* (C. S. S. R.) 36B, 330-43 (in English 343-4) (1934). - Analyses of Na, K, Ca, Mg, inorg. P and Cl of the blood serum of 18 schizoprenics are presented. Greater variations were found than in normal individuals. In the av. figures the serum Ca is higher while the Na and Cl are lower than in normal individuals. The serum K tends to be increased in the initial stages of the disease; if the disease is very much prolonged the Ca decreases to subnormal levels. The K/Ca and Na/Ca ratios are considerably lower than normally. W. A. Perlzweig